Reporting Federal Activities and Matters of National Concern . . .

HIGHER EDUCATION

December 1963

Differentiating the Functions of Administrative Officers in Colleges and Universities

ARCHIE R. AYERS and ERNEST V. HOLLIS

Current Condition of American Academic Libraries

THEODORE SAMORE

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—Office of Education

Contents

FEATURES

Differentiating the Functions of Administrative Officers in Colleges and Universities, *Archie R. Ayers* and *Ernest V. Hollis* 3
Current Condition of American Academic Libraries, *Theodore Samore* .. 7

OFFICE OF EDUCATION STUDIES AND SURVEYS

Reports of Cooperative Research Projects Available 10
Libraries Cooperating with the Documents Expediting Project 10
The 2-Year College 11
Record Enrollment in Degree Programs 11
Continued Increase in Advanced Degrees 12

OE PROGRAM NOTES

National Defense Education Act 12

INTERNATIONAL EDUCATION

Arms Control and Disarmament Symposium 15
Agency for International Development 15
Foreign Teachers Study in Arizona 16

OTHER PROGRAM NOTES

Atomic Energy Commission 16
National Science Foundation 17
Public Health Service 17
Committee to Study Higher Education in the District of Columbia ... 19
Institutes Study Rehabilitation Problems 19

GOVERNMENT PUBLICATIONS 20

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

HIGHER EDUCATION
Vol. XX, No. 4

Reporting Federal activities and matters of national concern in higher education

Published nine times a year. Printing approved, Bureau of the Budget, August 30, 1960.

Subscription: In advance, $1.25 a year (single copy, 20 cents), to foreign countries, $1.75. For orders of 100 copies or more in bulk to one address in the United States, 25 percent discount is allowed. Send remittance to Superintendent of Documents, Government Printing Office, Washington, D.C., 20402

EDITORIAL COMMITTEE

Chester L. Neudling, *Chairman*
Henry S. Brunner — R. Orin Cornett
John H. Russel — K. W. Mildenberger

ANTHONY J. CELEBREZZE
Secretary of Health, Education, and Welfare

FRANCIS KEPPEL
Commissioner of Education

R. ORIN CORNETT, *Acting*
Assistant Commissioner for Higher Education

Differentiating the Functions of Administrative Officers in Colleges and Universities

ARCHIE R. AYERS and ERNEST V. HOLLIS*

THE ORGANIZATIONAL PATTERNS of colleges and universities provide fertile ground for the growth of the seeds of conflict, rivalry, and tension. For this reason, among others, position descriptions constitute an important means for communicating the allocation of workload.

Central Staff Position Descriptions

The importance of a written description of a college officer's responsibilities is discussed in a recent office publication.[1] This discussion of organizational structure focuses on the duties of a president, academic dean, director of student services, business manager, and director of development.

This article provides a sample listing of the functions and responsibilities of each of several general administrative officers in large colleges and universities. Boards of trustees and college administrators may find it useful as illustrative of ways to strengthen and protect working conditions for presidents and subordinates in general administration.[2]

Although ultimate authority for a college or university lies with its governing board, operating authority and responsibility are usually delegated by the board to the president. Since the president will not personally perform all the functions delegated to him, he must, in turn, delegate responsibility with adequate authority for certain selected functions to persons in his span of control (those who report to him directly). These persons must, in turn, delegate some functions to their subordinates and so on down the line. Delegation must always be related to administrative level and to the personality and competence of the officer to whom responsibility is delegated. The delegation of responsibility diminishes in no manner or degree the authority and responsibility of the governing board or officer granting it.

The President

In accordance with the requirements of the charters and bylaws of most colleges and universities, the president has authority from and is responsible to the board of trustees for—

1. The operation and development of the institution as a whole and for each of its parts.
2. Service as the chief administrative officer and the principal educational officer of the institution.
3. Maintaining and promoting a broad view of the objectives and the mission of the institution.
4. Planning, developing, and administering all institutional activity.
5. Developing and maintaining a program of instruction, research, and service suited to the needs of the institution's sponsors and students.
6. Recruiting and maintaining a high-quality instructional, research, and administrative staff.

[1] *Internal Structure, Organization and Administration of Institutions of Higher Education,* Archie R. Ayers and John H. Russel, U.S. Department of Health, Education, and Welfare, Office of Education, 123 p., U.S. Government Printing Office (OE–53012), 1962.

[2] The delineations and interrelations which follow are largely adapted from an unpublished manuscript by Ernest V. Hollis, "Organization for Administering Higher Education in Puerto Rico, 1959."

Specialist for college and university organization, and director of College and University Administration Branch, Division of Higher Education, Office of Education.

7. Recruiting, admitting, and supervising a qualified student body.
8. Developing plans to finance the required capital and current budgets of the institution.
9. Developing and maintaining modern procedures in plant maintenance and in purchasing, budgeting, accounting, auditing, and financial reporting.
10. Developing a sound, streamlined, administrative structure for the institution, to the end that all employees may be properly assigned and supervised.
11. Developing communication channels between and among all staff and student groups in the institution.
12. Disseminating information regularly about the institution to other agencies related to the constituency; to cultural, civic, and business organizations; to the alumni; and to the general public.

Officers in Charge of Major Operating Categories

Fundamental items common to the academic dean, the director of student services, the business manager, and the director of public relations and development are listed for them as a group to avoid repetition.

The responsibilities and functions listed in the nine items should, however, be considered as an integral part of the specific responsibilities and functions listed for each of the four officers.

Each of these four officers has certain common responsibilities. For example, he—

1. Serves as an alter ego of the president; hence, his office is an extension of the president's office.
2. Has from the president, in writing, a broad and specific delegation of authority for his area of responsibility, which he exercises in conformity with the stated policies and procedures of the university administration.
3. Respects the authority and areas of responsibility assigned by the president to the others, and works with the others as equals in maintaining coordinate relationships between and among the various units, divisions, and departments as they cooperate in performing related functions.
4. Keeps in mind the cardinal objectives of the university and makes recommendations to the president regarding plans, policies, and procedures in the area of his delegated responsibility.
5. Equips and staffs his units, subject to concurrence of the president and approval by the board of trustees, to discharge the responsibilities assigned.
6. Integrates and coordinates the work of the administrative subdivisions within his area of jurisdiction, and articulates the work of his area with that of the other areas of university activity.
7. Provides professional leadership in recruiting and developing staff members in the area of his delegated responsibility.
8. Serves as the major adviser on budget development for his area.
9. Prepares special reports that may be requested by the president and for the section of annual and other recurring reports in his delegated area of authority.

Specific Duties of Major Officers

Academic Dean

In addition to the functions and responsibilities listed in the nine items, the academic dean is responsible for the following specific duties:

10. Through established channels, he encourages the faculties in constituent divisions of the college to develop and offer instructional research and service programs of excellence in undergraduate, graduate, and professional fields.
11. In cooperation with others he formulates criteria for use in establishing honors courses and stimulates their use by constituent units of the academic areas.
12. He provides remedial measures to remove deficiencies identified in the basic skills of students.
13. In cooperation with the directors and faculties of the academic divisions, he sets standards covering students' completion of courses, graduation, and special honors.
14. Through the librarian, and in cooperation with pertinent members of his own staff and institutional officers, he is responsible for the adequate provision and use of instructional materials, including library and certain types of laboratory equipment, museum and art resources, and visual and auditory aids.
15. In cooperation with the director of student

services, he works with the constituent academic divisions to evaluate the effectiveness of academic counseling and to devise organization and procedures to improve its effectiveness.

16. He works to evaluate and improve the academic achievement of students as measured by tests which permit comparison with national norms.

17. He coordinates the preparation of all material on academic activities for the catalog or other official college publications and approves the content before publication.

18. He coordinates the academic affairs of evening and summer offerings through the director of the evening and summer programs.

19. He is responsible for the administration and safety of student academic records.

20. In cooperation with others, he develops appropriate position descriptions for those under his supervision.

21. He develops a sound academic administration for which he is responsible.

The Director of Student Services

In addition to functions and responsibilities listed as common to the other three officers in the president's span of control, the director of student services is responsible for the following specific duties:

10. He is responsible for the creation and maintenance of a cultural, social, and spiritual environment calculated to encourage the well-rounded development of the individual student.

11. He is responsible to the president for developing policies, procedures, and programs for providing such financial and academic assistance as will enable students to reach their educational goals.

12. In cooperation with others, and with the approval of the president, he arranges for a continuing flow to the campus of lectures and discussions by leaders in spiritual, moral, cultural, professional, business, and labor fields, and for stimulating programs in music, drama, dance, and other esthetic arts.

13. Working with other appropriate officials and student leaders, he develops policies and procedure that will encourage students to initiate and maintain a student government, other student organizations, and student publications which students conduct with a minimum of counsel and control by officials of the institution.

14. He devises a system for the administration of student discipline (with requisite standards governing conduct), including the management of students living in college-controlled or related facilities.

15. In cooperation with the business manager and other college officials as indicated by the circumstances, he determines the duties of all persons who direct or supervise students in extracurricular capacities, such as managers and assistants of housing units, feeding facilities, and those who manage health and recreational facilities.

16. With the help of his own staff and in cooperation with the academic dean and his staff, he develops criteria and procedures governing the recruitment, admissions,[3] registration, counseling, testing, and placement of students.

17. He studies the causes of student attrition and proposes remedial measures for the consideration of the administrative committee.

18. He coordinates the preparation of all material on student services which is to appear in the college catalog or other official college publications and approves final content.

19. In cooperation with others, he develops appropriate position descriptions for those under his supervision.

20. He develops a sound student services administration for which he is responsible.

The Business Manager

In addition to the functions common to the other three officers in the president's span of control, the business manager has the following functions and responsibilities:

10. He is responsible to the president for the administration of all the business affairs of the institution and is clearly delegated commensurate authority.

[3] Since administration of admissions and records touches both the academic and the student services areas, opinion differs on the assignment of the officers responsible for these services. However the assignment is made, it is imperative that the coordinate relationship between the academic and the student services areas be clearly designated. Provision must also be made, regardless of the choice of assignment, for full, continuing participation by both the chief academic officer and the major officer for student services in the development of governing policy.

11. He and his staff formulate business policies, develop operating procedures, establish accounting and reporting methods, and coordinate day-to-day business operations.

12. He is responsible for the collation, consolidation, and preparation of the final draft of the budget for submission, through the president to the board of trustees.

13. When the board of trustees has acted and an operating budget has been prepared and approved by the administrative committee, he directs the budgetary controls for the institution.

14. He is responsible for the recruitment and development of nonacademic staff.

15. In cooperation with the director of student services, he formulates policies and procedures governing financial relations with students and with the operation of auxiliary enterprises, such as dormitories, cafeterias, bookstores, recreational facilities, and similar enterprises related to student life.

16. He manages the business phases of these auxiliary enterprises and supervises their financial aspects, including student loans, scholarships, credit, the auditing of student organization accounts, food service, housing, and bookstore.

17. He formulates policies and procedures, and provides for the collection, custody, investment, disbursement, accounting, and auditing of all moneys of the college; handles negotiations for loans and other financing; and maintains a system of financial and related statistical reporting.

18. In addition to his responsibility for physical plant operation and maintenance, he formulates policies and procedures for the development and management of the physical plant, including custodial care, sanitation, and fire and police protection.

19. He conducts the business phases of physical plant planning and the supervision of construction.

20. He develops policies and procedures and engages in a plan for the procurement of goods and non-personal services, including preauditing of acquisitions or rentals, and provision for warehousing, distribution, control, and disposition.

21. He coordinates service operations, such as printing, duplicating, mail and messenger service, binding, and machine computing and tabulating.

22. He has an annual report of the financial status of the institution prepared.

23. In cooperation with others he develops an appropriate position description for each of his subordinates.

24. He develops a sound business administration capable of performing in an effective and satisfactory manner to discharge these responsibilities which have been assigned to him by the president.

Director of Development and Public Relations

In addition to the responsibilities he holds in common with the other three officers in the president's span of control, the director of public relations and development has the following functions and responsibilities:

10. He is responsible to the president for directing an integrated program for defining, popularizing, and securing acceptance of the major goals and objectives of the institution and for relating them to the institution's various publics.

11. He is responsible for keeping before the college or university officials, professional and cultural organizations, and the general public, a list of the more specific current and long-range educational, physical, and financial objectives and programs approved by the board of trustees, together with the development of means and techniques for achieving them.

12. He is responsible for developing and putting into effect policies and procedures for maintaining excellent information and news services and for providing a supervisory arrangement for the release of information through the mass media.

13. He formulates policies governing the content, form, scope, and distribution of all college or university publications of a promotional character, and, in cooperation with other major officials, supervises the production of the annual catalog, student publications, and similar publications.

14. He is responsible for developing means and

(*Continued on page 19*)

Current Condition of American Academic Libraries

By THEODORE SAMORE*

IT IS UNIVERSALLY AGREED that good colleges have good libraries, and, conversely, poor colleges have poor libraries. How does one know when a library is good or bad? There is no escaping the time-honored appeal to facts. What are the facts?

About the only facts we have concerning college and university libraries are statistical. Within limits, however, library statistics can reveal the condition of libraries in terms of resources, facilities, and performance. Since 1876, the Office of Education has conducted periodic surveys of all the types of libraries, and since 1959–60 has published an annual compilation of college and university library statistics.

Some of the facts collected in these surveys are summarized in table 1. At first glance, the resources of academic libraries seem impressive. The figures are, however, deceptive, for there is a striking disproportion in the distribution of library resources among colleges: 50 or 2.5 percent of the almost 2,000 academic libraries in the country own almost 39 percent of all volumes, spend 36 percent of the total expenditures for library materials, and employ 35 percent of the total staff.

Furthermore, because of the steady rise in student enrollment and instructional staff, library resources have regressed or merely marked time. In 1959–60, there was a national ratio of 51.9 volumes per student; in 1961–62, 51.3 volumes. There has been similar "progress" in other areas. For example, the national ratio of professional library staff members to students in 1959–60 was 1 to 378 and in 1961–62 it was still 1 to 378.

Since these are figures for the nation as a whole, they tell an individual college nothing about its library. It can, however, judge for itself the adequacy of its own library by comparing its resources with certain quantitative standards recommended by the American Library Association.[1] These standards were adopted after many years of effort by the Association of College and Research Libraries (a division of the ALA).

Both documents stress the point that "The standards . . . must always be interpreted in the light of the aims and needs of the institution of which the library is a part." The *ALA Standards for College Libraries* also asserts that probably nothing is more difficult than assessing the quality of a college library, since it involves so many intangible factors. Nothing, however, is more important to college officials than knowing how effective the library service actually is. A library can take certain steps to gauge its attainments; it can, for example, continuously evaluate the statistical records of the circulation department, make surveys of what students are reading in the library, maintain records of books which students requested and which it could not supply, and study those reference questions which it could not answer.

To help officials measure the adequacy of their resources and services, the ALA recommends three quantitative standards for college libraries:

1. A minimum of 50,000 volumes for an enrollment up to 600 students; for every additional 200 students, 10,000 more volumes.
2. A professional staff of at least three librarians. Since the size of the staff will vary with the size of the institutions, several formulas are suggested which can be employed to determine adequate staffing.
3. A library budget of not less than 5 percent of

College and research library specialist, Library Services Branch, Division of Education, Office of Education.

[1] American Library Association. *ALA Standards for College Libraries*, Chicago, the Association of College and Research Libraries, 1959, and *ALA Standards for Junior College Libraries*. Chicago, the Association of College and Research Libraries, 1960.

Table 1.—College and university libraries: Summary of statistics for academic years, 1959–61

[In aggregate United States]

Item	1959–60	1960–61	1961–62 [1]
Number of libraries	1,951	1,975	1,985
Number of students served (enrollment)	3,402,000	3,610,000	3,891,000
COLLECTIONS			
Number of volumes at end of year	176,721,000	189,110,000	199,594,000
Number of volumes per student	51.9	52.4	51.3
Number of volumes added during year	8,415,000	9,396,000	10,800,000
Number of volumes added per student	2.5	2.6	2.8
Number of periodicals received	1,271,000	1,399,000	1,480,000
Number of periodicals per student	0.4	0.4	0.4
PERSONNEL			
Total (in full-time equivalents)	18,000	19,500	21,100
Professional personnel	9,000	9,700	10,300
Professional staff as percentage of total staff	0.50	0.50	0.49
Ratio of professional staff to students	1 : 378	1 : 372	1 : 378
Nonprofessional staff	9,000	9,800	10,800
Number of hours of student assistance	12,062,000	13,204,000	13,000,000
OPERATING EXPENDITURES			
Total (excludes capital outlay)	$137,245,000	$158,904,000	$181,000,000
Expenditures per student	40.34	44.02	46.45
Expenditures as percentage of educational and general expenditures	3.0	3.1	3.1
Salaries (personnel not on hourly rate)	72,495,000	83,782,000	95,000,000
Salaries as percentage of operating expenditures	52.8	52.7	52.6
Salaries as percentage of educational and general expenditures	1.6	1.6	1.7
Wages (at hourly rates of pay)	11,680,000	13,889,000	15,200,000
Wages as percentage of operating expenditures	8.5	8.7	8.4
Expenditures for books and library materials [2]	45,612,000	53,301,000	61,400,000
Such expenditures as a percentage of operating expenditures	33.2	33.5	34.0
Other operating expenditures	7,458,000	7,932,000	9,400,000
Other operating expenditures as a percentage of operating expenditures	5.4	5.0	5.2

[1] These preliminary figures will be adjusted when valid estimates have been made of non-respondent institutions.
[2] Includes binding.

the total educational and general budget.

The equivalent standards for junior college libraries are:

1. A minimum of 20,000 volumes for an enrollment up to 1,000 students; for every additional 500 students, 5,000 volumes.
2. A professional staff of at least two librarians. The size of the staff, of course, will vary with the size of the institution.
3. A library budget of not less than 5 percent of the total educational and general budget.

ARE AMERICAN academic libraries adequate when measured against these standards? The answer is indicated in table 2.

Distressing as these figures are, they are likely to get worse, for the situation they reflect will be influenced in the years ahead—in the growth of knowledge and the increase in prices, and in the number of students and staff members.

Although we are all familiar with the explosion of knowledge, the following items can still numb our imagination:

1. 1,000,000 articles are published in scientific journals each year; 450,000 are published in the U.S. alone; in addition about 100,000 reports are published annually by the U.S. government.
2. 80,000 scientific and technological journals are currently published; in 35 years there will be over a million.
3. Approximately 250,000 book titles were published in 1962; in 1940 there were 156,000.

Expansion in publishing or of knowledge has been accompanied by sharp and sometimes drastic increases in the prices of books and journals. For example, in 1930, *Chemical Abstracts* contained 54,000 abstracts and cost an institution $12 a year. In 1963 this publication will contain almost 170,000 abstracts and cost college libraries $500 a year.

ALTHOUGH this Nation contains several of the finest university libraries in the world, the overwhelming majority of our academic libraries are understaffed, poorly housed, and ill-equipped in resources; and all signs point to a continuation of this state of affairs.

However, a number of "solutions" have been advanced to mend matters; and solution number one has been, naturally, automation. Indeed, automation has worked exceedingly well in many fields—in preparing payrolls, controlling inventories, handling banking operations, keeping social security records, etc. Will it work in libraries? Of course it will. However, automation is no panacea. Ralph R. Shaw properly warns that,

> The nature of machine operations and the areas in which machines are useful are not changed simply by applying mechanisms to new fields. By the very nature of machines, they are useful when there is a relatively high frequency of repetitive operations and they are not useful when there is not a high frequency of repetitive operations. Library work presents very limited areas in which we have high frequencies of repetitive operations. Two areas that are obviously suitable for this approach are charging books and preparing catalog cards . . . There are relatively few areas that offer promise that more sophisticated machines can be justified for library or bibliographical operations.[3]

It is inevitable that librarians will be turning to automation to resolve some of their problems. But more investigation remains to be done before they can make full use of data processing. Fortunately, a great deal is being done at the Library of Congress, Western Reserve University, the University of Pittsburgh, the University of Illinois at Chicago, the University of California, San Diego, and numerous other places.[4]

Automation, however, is no substitute for financial resources. Computers, books, periodicals, pamphlets, microcards, films, phonorecords, and other library materials are expensive, as are physical facilities to house the materials and provide space for users. And it is unfortunately true that most libraries have failed to find sufficient funds to do what is expected of them.

Table 2.—Percentage of 4-year and 2-year academic libraries which fall below ALA standards in volumes, personnel, and library expenditures, Aggregate United States, 1959–61

Item by type of institution	1959–60	1960–61	1961–62
4-year institutions:	Percent	Percent	Percent
Volumes	55	52	76
Personnel	50	49	85
Expenditure	65	58	57
Percentage			
2-year institutions:			
Volumes	87	86	91
Personnel	77	75	85
Expenditure	61	62	57
Percentage			

Source: Analysis of Library Statistics of Colleges and Universities, 1959–60 (OE–15023), 1960–61 (OE–15023–61), 1961–62 (OE–15032–62).

When the parent institution is unable to provide enough money some libraries have sought funds from private, industrial, foundation, or governmental sources. The most recent survey on this matter is reported in three articles in a recent issue of *College and Research Libraries*.[5] The potential support of academic libraries from these sources is great. For example, the Congress is presently debating the granting of Federal funds to academic institutions for science and engineering buildings and libraries.

Other libraries are spreading the library dollar by making use of quality paperbacks. Thousands of excellent, inexpensive titles are now easily available.[6]

[3] Ralph R. Shaw. "Using Advances in Technology to make Library Resources More Available." Background Paper, topic 2 for Conference within a Conference. Chicago, American Library Association, 1963, p. 1.

[4] See particularly L. A. Schultleiss, D. S. Culbertson, and E. M. Heiliger. *Advanced Data Processing in the University Library.* New York, Scarecrow Press, 1962.

[5] "Extra-University Sources of Financial Support for Libraries: A Symposium": *In College and Research Libraries*, November 1962.

[6] An extensive listing of paperbacks is *Paperbound Books in Print* compiled in New York City, New York, by R. R. Bowker Co. Another useful tool is *The Paperback Goes to School*, obtainable from local paperback and magazine wholesalers. See also *Paperbacks for the Junior College* by Henry L. Lash, and "Operation Paperback" in the April 15, 1959 issue of *Library Journal.*

There is probably another point of attack on the problems of rising costs, the shortage of librarians and the flood of publications. Many hard-pressed academic libraries wishfully hope for succor from the other side of the river—authors and publishers. "Publish or perish" has become "Publish and drown with me." The "Weinberg report" emphasizes that any—

> Admonition to authors to restrain themselves from premature, unnecessary publication can have little effect unless the climate of the entire technical and scholarly community encourages restraint and good taste. But there are many pressures to publish quantity, fewer pressures to publish quality. The technical paper as a unit of currency for measuring the merit of a scientist becomes devalued, and administrators must consider this when they insist on frequent publication.[7]

Academic libraries can seek local support either through "book drives," fund raising campaigns or the establishment of "Friends of the Library." Perhaps none will work or perhaps all. In any case, the only limits are the imaginations of librarians and administrative officers.

OFFICE OF EDUCATION *Studies* AND *Surveys*

Reports of Cooperative Research Projects Available on Library Loan

THE LIBRARY OF CONGRESS "Documents Expediting Program" makes it possible to borrow final reports of projects completed under the Cooperative Research Program of the U.S. Office of Education. Copies of all reports are distributed to public, private, and university libraries which participate in the loan project.

The following list of available reports deal with problems in various phases of education:

James A. Davis. *Great Aspirations: Volume One.* National Opinion Research Center, University of Chicago, March 1963, No. 1194.

John R. P. French, Jr. *Self Actualization and the Utilization of Talent.* University of Michigan, 1963. No. E006.

Thomas L. Hilton, *Cognitive Process in Career Decision-Making.* Carnegie Institute of Technology, 1962. No. 1046.

G. D. McGrath and others, *Higher Education of Southwestern Indians with Reference to Success and Failure.* Arizona State University, 1962. No. 938.

Royce R. Ronning and others, *Application of Multidimensional and Scale Analysis to Interest Measurement.* University of California, 1963. No. 1493.

John Schmid and others, *An Analysis of Some Necessary Qualities of Teachers.* University of Arkansas, 1962. No. 453.

Erwin R. Steinberg, *Needed Research in the Teaching of English.* Carnegie Institute of Technology, May 1962. No. F–007.

Charles W. Telford, *The Psychological Impact of the Public Two-Year College on Certain Non-Intellectual Functions.* San Jose State College, June 1963. No. 914.

Donald L. Thistlethwaite, *Recruitment and Retention of Talented College Students.* Vanderbilt University, 1963. No. 167.

Robert L. Thorndike, *The Concepts of Over-and-Under-Achievement.* Teachers College, Columbia University, Bureau of Publications, 1963 No. "D."

Harry T. Weaver and Howard E. Carr, *Computer Grading of Physics Laboratory Reports.* Auburn University, 1962. No. 1641.

Libraries Cooperating With the Documents Expediting Project

LISTED HERE, in alphabetical order by State, are the names of institutions and organizations whose libraries are cooperating with the documents expediting project, Library of Congress. Copies of reports on Cooperative Research projects may be borrowed from the libraries.

Alabama
University of Alabama, University
California
California State Library, Sacramento
University of California, the General Library, Berkeley
University of California, Los Angeles

[7] The President's Science Advisory Committee. *Science, Government, and Information.* GPO, 1963.

San Diego State College, San Diego

Colorado
University of Colorado, Boulder

District of Columbia
Library of Congress, Washington

Florida
Florida State University, Tallahassee
University of Florida, Gainesville

Hawaii
University of Hawaii, Honolulu

Illinois
University of Chicago, Chicago
University of Illinois, Urbana
Midwest Inter-Library Center, Chicago
Northwestern University, Evanston

Indiana
Indiana State Library, Indianapolis
Indiana State Teachers College, Terre Haute
Indiana University, Bloomington
Purdue University, Lafayette
Ball State Teachers College, Muncie

Kansas
University of Kansas, Lawrence
Kansas City Public Library, Kansas City

Maryland
Enoch Pratt Free Library, Baltimore
Johns Hopkins University, Baltimore
Montgomery County Board of Education, Curriculum Laboratory, Rockville

Massachusetts
Boston College School of Education, Chestnut Hills

Michigan
Detroit Public Library, Detroit
Kalamazoo College, Kalamazoo
Michigan State University, East Lansing
University of Michigan, Ann Arbor
Wayne State University, Detroit

Minnesota
University of Minnesota, Minneapolis

Mississippi
Mississippi Southern College, Hattiesburg

Missouri
University of Missouri, Columbia
Kansas City Public Library, Kansas City

Nebraska
University of Nebraska, Lincoln

New Hampshire
Dartmouth College, Hanover

New Jersey
Princeton University, Princeton
Rutgers University, New Brunswick

New York
Brooklyn Public Library, Brooklyn
Columbia University, New York City
Cornell University, Ithaca
New York Public Library, New York City
New York State Library, Albany
United Nations Library, New York City
Syracuse University, Syracuse

North Carolina
Duke University, Durham
North Carolina State College, Raleigh

Ohio
Kent State University, Kent
Miami University, Oxford
Ohio State University, Columbus

Oklahoma
Oklahoma State University, Stillwater
Oklahoma State, Oklahoma City

Pennsylvania
Lehigh University, Bethlehem
Pennsylvania State University, University Park
Free Library of Philadelphia, Philadelphia
Carnegie Library of Pittsburgh, Pittsburgh
American Institute for Research, Pittsburgh

Rhode Island
Brown University, Providence

South Carolina
University of South Carolina, Education Department, Columbia

Tennessee
University of Tennessee, Knoxville
Joint University Libraries, Nashville

Texas
Dallas Public Library, Dallas

Virginia
University of Virginia, Charlottesville

Washington
Washington State University, Pullman
University of Washington, Seattle

Wisconsin
Milwaukee Public Library, Milwaukee

Wyoming
University of Wyoming, Laramie

The 2-Year College

The 2-Year Community College: An Annotated List of Unpublished Studies and Surveys, 1957–61 (OE–57005), by D. G. Morrison, K. A. Brunner, and S. V. Martorana, is the fourth OE bibliography of studies pertaining to the 2-year college. The list of 270 projects is divided into those completed and those still under way. The studies are classified into regional, institutional, and topical projects. References are included on topics such as curriculum, instruction, faculty and staff, student services, administration, facilities and campus planning, library, and interinstitutional cooperation. This bibliography should be of value to administrators, professors, students, and research workers, and others interested in the 2-year college program.

The three authors are specialists, Division of Higher Education, Office of Education.

Record Enrollment in Degree Programs

More than 4.5 million students enrolled in 2,140 colleges and universities this fall to work for degrees. This breaks all records for the 12th consecutive year. The total, 4,529,000, is 7.7 percent higher than the 4,207,000 in the fall of 1962, and is considerably more than double the 2,116,000 in the fall of 1951.

In addition, 271,800 persons enrolled in undergraduate programs generally not carrying credit toward a bachelor's degree. For the most part these 2 or 3 year programs are designed to prepare people

for employment. This is the first year the Office of Education has attempted such an estimate for the annual opening fall survey. Two-thirds of these students, 67.3 percent, are men.

The number of part-time students in the record-breaking enrollment rose 12 percent, from 1,285,000 in the fall of 1962 to 1,439,000. In contrast, the number of full-time students increased only 5.8 percent, from 2,922,000 to 3,090,000.

The proportion of women edged upward slightly, continuing a 7-year trend. Women now total 1,739,000 or 38.4 percent as compared with 1,604,000 or 38.1 percent of the total a year ago. The figure in 1956 was 34.6 percent.

The number of first-time students this fall is 1,055,000, only 1.6 percent over the 1962 figure of 1,039,000. Women in this group rose to 42.3 percent as compared with 42 percent in 1962.

Continued Increase in Advanced Degrees

DURING the 1962–63 academic year American universities granted a record total of 105,000 master's and doctor's degrees, according to an Office of Education survey of institutions granting such degrees.

Advanced degrees in engineering also set new records for 1962–63. The figures were developed by the Office of Education from reports of degrees awarded in 1962–63 by a large percentage of the 647 colleges and universities which conferred degrees beyond the bachelor level. These preliminary figures indicate that:

★The number of master's degrees in all fields increased for the ninth consecutive year to a total of 93,000 in 1962–63 as compared with 84,900 in 1961–62 and 56,800 in 1953–54, when the upward trend began.

★The number of doctorates in all fields increased for the sixth consecutive year and reached 12,200 in 1962–63 as compared with 11,600 in 1961–62 and 8,800 in 1956–57, the year in which the last increase began.

★The number of master's degrees granted in engineering in 1962–63 totaled 9,651 compared with 8,909 in 1961–62; engineering doctorates in 1962–63 reached 1,336 while the 1961–62 figure was 1,207.

★The number of master's degrees in engineering increased 8.3 percent and the number of doctorates in engineering 15 percent between 1961–62 and 1962–63.

According to a summary report on the Office of Education survey of students enrolled for advanced degrees in the fall of 1962, enrollments in all fields totaled 374,000 as compared with 339,000 in the fall of 1961 and 305,000 in the fall of 1959. Enrollments for advanced degrees in the physical sciences totaled 28,600 in the fall of 1962 and 26,600 the previous fall. Enrollments for advanced degrees in engineering totaled 43,800 in the fall of 1962 compared with 39,400 in the fall of 1961.

For more information, see *Degrees in the Biological and Physical Sciences, Mathematics, and Engineering, 1949–50 Through 1959–60* (OE–54029), available from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, for 35 cents.

OE program notes

National Defense Education Act

Regional representative appointed

CHARLES H. HAMBLEN, JR., has been appointed by the U.S. Office of Education as its representative for higher education, in the New York City Regional Office. Most recently, Mr. Hamblen served as vice-president of Central Florida Junior College, Ocala. In this position he was coordinator of the major college committees, dean of students, the director of business services, chairman of the college's research council and member of its personnel committee. Earlier, he had been assistant professor of education and academic counselor at the University of Florida, and principal of Kirby Smith School, Gainesville, Florida.

Mr. Hamblen earned his bachelor of arts degree at Carson-Newman College, Jefferson City, Tennessee, and his master of arts in education from the University of Florida. He is a candidate for the doctorate at Columbia University.

Graduate awards

Approximately 1,000 awards for the 1964–65 academic year will be made to graduate students planning to enter college teaching, government

service, or professional or technical activity in nonprofit, nonsectarian organizations. These fellows will receive tuition and all required fees plus stipends of up to $2,000. Travel and dependency allowances may be granted. No awards are made for the study of French, German or Italian, languages commonly taught in the United States. Awards in Spanish are limited to Latin American language and area studies.

1964–65 Modern Foreign Language Fellowship Program

APPLICATION MATERIALS for approximately 1,200 graduate and undergraduate fellowships in modern foreign languages critically important to the United States, are now available at participating colleges and universities.

The fellowships are offered for the study of languages and related area subjects pertaining to Africa, Asia, Latin America, the Middle East, and Western and Eastern Europe, including the USSR. The U.S. Office of Education awards the fellowships under provisions of the National Defense Education Act. The Office will expend approximately $3.6 million on this program for the 1964–65 academic year. The fellowships will be announced during the spring of 1964.

Fulbright-Hays awards

EIGHTY Fulbright-Hays travel and maintenance awards are available to graduates for study of non-Western languages and area studies overseas. Applicants must be preparing to teach at the college level, have completed 2 years of graduate work, including study of one of the languages of the foreign area in which they are interested. They must be recommended by the institution in which they are studying.

Postdoctoral awards

A limited number of postdoctoral fellowships will be granted to trained linguists for the intensive study of Russian at Indiana University during the summer of 1964. In addition, ten 12-month postdoctoral fellowships for the study of Arabic, Chinese, Hindi-Urdu, Indonesian, Japanese and related area subjects will be available to faculty members of 4-year liberal arts colleges which have established, or are about to establish, programs in non-Western studies. Upon completing their work at various NDEA language and area centers, participants will return to their sponsoring colleges as administrators or teachers in undergraduate programs of non-Western studies.

Undergraduate awards

About 200 undergraduate awards will be offered for the intensive study of certain non-Western languages during the summer of 1964 at NDEA language and area centers. Candidates for the undergraduate fellowships must have at least a year of college preparation—or its equivalent—in the language and should plan to continue studying the language during the following academic year. Those selected will receive $400 for maintenance plus tuition and travel allowances.

Application forms should be obtained from the institutions where candidates wish to study and not from the Office of Education. Further program details are contained in a pamphlet entitled *1964–65 Modern Foreign Language Fellowship Program*, now available from the Office of Education and participating institutions.

Title VI. language development

THE OFFICE OF EDUCATION recently negotiated 8 contracts with educational institutions under title VI (language development) of the National Defense Act. The holders of contracts and their provisions are as follows:

1. The University of Chicago: To prepare various introductory teaching materials in Bengali, Urdu, and Hindi, three critically important languages of South Asia. The content for these materials was compiled and developed under a previous Office of Education contract.

The staff of the university's South Asian Languages Program, under the direction of Edward C. Dimock, Jr., is supervising the preparation of the books and texts for duplication. The East-West Center Press, Honolulu, Hawaii, will reproduce, by photo-offset, 225 paperback copies of each text. Work under this contract began October 1, 1963, and is to cost $10,206.

2. Kalamazoo College, Kalamazoo, Michigan: To test the feasibility of combining basic course materials, language laboratory facilities, and the services of foreign students as native speakers, for the study of neglected languages in an independent program at small U.S. colleges.

Under this contract, the college is to offer instruction in three of the neglected languages chosen from among Hindi, Portuguese, Chinese, Japanese, Swahili, and Turkish. Students will participate voluntarily, working independently with commercially available texts and drill tapes in one of the languages offered for about 10 hours per week and with a native speaker for an additional 5 hours. Oral proficiency will be measured weekly, utilizing taped recordings which will be evaluated quarterly by language specialists during their visits to the college.

Peter Boyd-Bowman, chairman of the Department of Foreign Languages at Kalamazoo College, is directing the project. Work began October 4, 1963, and is to cost $9,102.

3. The Modern Language Association of America, New York City: To survey modern foreign language enrollments in the Nation's junior colleges, senior colleges, and universities in fall 1963. Information on all modern foreign languages, including those not commonly taught, will be collected and analyzed. The information obtained on languages, especially those not commonly taught, will be of assistance in the continuing definition of the language needs of the United States.

John H. Fisher, executive secretary of the Modern Language Association, and John Harmon, its research director, are in charge of the work. The project began October 4, 1963, and is to cost $28,580.

4. The Modern Language Association of America, New York City: To undertake a nationwide survey designed to maintain and supplement the rosters of students and teachers of neglected languages in U.S. colleges and universities. Under a previous Office of Education contract, the Modern Language Association compiled the original rosters showing the education, experience, and career goals of teachers and students of such languages.

John H. Fisher, executive secretary of the Modern Language Association, and John Harmon, its research director, are responsible for the project. The contract began October 4, 1963, and is to cost $31,596.

5. Calvin College, Grand Rapids, Michigan: To revise and expand an annotated bibliography on Dutch studies prepared under a 1961 contract with the U.S. Office of Education and distributed in mimeograph form to specialists and university libraries. This material is the only U.S. source of comprehensive information on facilities for the study of Dutch language, literature and civilization.

The new contract authorizes revision and duplication (100 copies) of the bibliography in order to incorporate suggestions received from scholars who have evaluated it. The contract also provides for inclusion of additional entries on Dutch grammar, Dutch culture and language in Belgium, and Dutch library holdings in this country.

Walter Lagerwey, professor of Dutch language and literature at Calvin College, is directing the project. Work began October 7, 1963, and is to cost $2,146.

6. The University of Chicago: To begin a project to develop basic courses in Yucatec and Quiche, two Indian languages of Middle America. At present, there are no adequate materials for teaching these languages, which are spoken by some 850,000 people in Mexico, Guatemala, and British Honduras.

The university will begin by gathering, adapting and recording materials for a practical grammar. It will conduct part of the work in Yucatan with the help of a native speaker, and later will develop materials for Quiche under a second phase of the project.

Norman A. McQuown, professor of anthropology and linguistics at the University of Chicago, is in charge of the project. Work under the contract began October 15, 1963, and is to cost $38,449.

7. University of Utah, Salt Lake City: To conduct a 2-day conference, November 20 and 21, to discuss the teaching of Arabic in U.S. secondary schools. Arabic has been designated by the Commissioner of Education as one of seven languages requiring first priority of development in the United States.

Experts in linguistics and the teaching of Arabic and representatives of several large city school systems where classes in Arabic may be introduced met at the university to consider the problems of introducing or improving instruction in Arabic. Teaching materials developed under previous Office of Education contracts and currently in experimental use in the public schools of Bountiful, Utah, were reviewed and evaluated.

Professor Aziz Atiya, director of the Middle Eastern Language and Area Center at the University of Utah, was host to the conference. Work under the contract began October 15, 1963 and cost $1,729.

8. The Inglewood Unified School District of Inglewood, California: To test the effectiveness of a self-instructional one-year course in spoken Spanish

among 4th through 7th grade teachers. The project is being undertaken in anticipation of the need for additional foreign language teachers at the opening of the 1965–66 school year when, by State law, foreign language instruction is made mandatory in the 6th grade in California schools.

The tape-recorded materials to be evaluated were developed by the University of Michigan under a fiscal year 1963 contract with the Office of Education.

The 13 teachers taking part in the project will work with complete sets of materials and tape recordings in the evenings and on weekends, each proceeding at his own rate. In addition, each teacher is to be scheduled for a bimonthly conference with a trained supervising Spanish instructor. Periodic meetings will be held with all participants to evaluate progress and discuss specific problems. Upon satisfactory completion of the course, participants will receive two units of college credit from California State College at Palos Verdes.

Quentin R. Bryan, administrative assistant for guidance, counseling, and special projects in the Inglewood Unified School District, is in charge of the project. It is to be completed by August of 1964, at a cost of $6,955.

International Education

Arms Control and Disarmament Symposium

THE Second International Arms Control and Disarmament Symposium, sponsored by the University of Michigan and the Bendix Corporation, will be held in Ann Arbor, January 21 to 24, 1964. Bendix is associated with the university in a continuing program of research on the international problems of arms control, under a contract between the company and the U.S. Arms Control and Disarmament Agency.

Five major addresses will be presented in addition to 15 technical sessions open only to symposium registrants. Topics for discussion include "The Economics of Disarmament," "Problems of Inspection," and "The Effect of Disarmament on World Power Alignment."

The first symposium, held in December 1962, included such speakers as Minnesota Senator Hubert Humphrey, UAW–CIO President Walter Reuther, William C. Foster, Director of the U.S. Arms Control and Disarmament Agency, and Victor Karpov, First Secretary of the Soviet Embassy.

Agency for International Development

Nyasaland education study

THE TRAINED MANPOWER which will be needed in Nyasaland's economic and social development will be considered as a major factor in a study of the nation's education system. The study is being conducted by the American Council on Education under a $58,000 contract awarded by the Agency for International Development. The British Ministry of Education is cooperating with the Council.

After a comprehensive assessment of Nyasaland's institutional requirements and curricular emphasis, the Council will make proposals for educational development which could serve as a guide in the establishment of institutions to meet the demands in training human resources for the next 15 years.

The Council expects to complete the study early in 1964.

Educators survey U.S. post schools abroad

A SURVEY to determine the adequacy of educational facilities for dependents of U.S. Government civilian personnel stationed in 17 countries in the Near East-South Asia region was initiated September 28 by the National Education (NEA) under a contract with the Agency for International Development. The survey is being conducted by three prominent educators.

The Congress, recognizing that dependents at U.S. posts abroad need adequate schooling, has authorized, in the Foreign Assistance Act, AID to spend up to $1.5 million a year to improve facilities.

NEA expects to complete the survey by mid-December, at a contract cost of $23,000.

U.S. land grant college aids African school

THE Agency for International Development has awarded a $700,000 contract to the University of Illinois at Urbana, to provide technical assistance, during the next 3 years, to the Sierra Leone Government in establishing the new Njala College.

The University of Illinois, a typical land grant college, will be the pattern for the organization and

operation of this integrated agricultural and educational institution.

The contract will require 3 of the university's staff members to work with the faculty of the college by early 1964, with the assignment of an additional 5 staff members by the following September.

Grant for University of Nigeria Program

THE Agency for International Development has awarded a $2,104,000 grant to Michigan State University for the continuation, over the next 2 years, of its assistance to Nigeria in the development of the University of Nsukka. This grant, the largest AID education contract for Nigeria, will allow the university to increase its staff and purchase new equipment for agricultural research and engineering.

Foreign Teachers Study in Arizona

Secondary school teachers from countries all over the world are studying American educational procedures at the University of Arizona in a program sponsored jointly by the U.S. Department of Health, Education, and Welfare and the U.S. Department of State.

The 18 participants in the study program are teachers from British Guiana, Chile, Colombia, Finland, Gibraltar, Greece, Jamaica, Malaya, Panama, Peru, Poland, Sierra Leone, and Trinidad. They all speak English and were recommended by their ministries of education.

Other Program Notes

Atomic Energy Commission

Courses in reactor technology

SEVENTY-FOUR SCIENTISTS and engineers are taking advanced courses at the Oak Ridge School of Nuclear Reactor Technology in Oak Ridge, Tennessee, under programs sponsored by the Atomic Energy Commission. This is the largest class since 1958.

Of the 74 students, 58 are from the United States and 16 are from abroad. The courses, which run for 12 months, are taught by full-time faculty members assisted by laboratory staff directly engaged in research, development, and operation of reactors.

"Atoms at Work" exhibit in Montevideo

THE Atomic Energy Commission's exhibit "Atoms at Work" opened in Montevideo, Uruguay, November 1. Since its first showing in Buenos Aires in late 1960, the exhibit has been shown in Rio de Janeiro, Lima, Mexico City, Santiago, and Bogotá.

The exhibit is presented in three phases: the first for the general public, shows the latest advances in the peaceful applications of the atom; the second, for scientists and engineers, shows a portable laboratory equipped with various nuclear tools such as an operating teaching and research reactor; and the third, for college and high school science students, includes a series of seminars on various fields of atomic energy.

Science symposiums

Two symposiums sponsored by the International Atomic Energy Agency were held recently in Long Island, New York, and Vienna, Austria. The first, held in Brookhaven National Laboratory, October 7–11, discussed the biological effects of neutron irradiations. Scientists, physicians, and administrative officials from 18 member countries attended.

The Vienna symposium, held November 11–15, was on physics and material problems of reactor control rods. Technical papers were presented at both meetings.

Scientists at AEC institute

Thirty-one graduate scientists and engineers representing eight foreign countries and the United States are attending the Institute of Nuclear Science and Engineering, which opened October 2 at the Atomic Energy Commission's Argonne National Laboratory in Argonne, Ill.

The institute, previously known as the International Institute of Nuclear Science and Engineering, is devoted to cooperative programs in nuclear science and engineering education with associations such as Associated Midwest Universities and Associated Colleges of the Midwest, individual educational institutions, and secondary schools.

Eight of the 31 persons attending the institute are "affiliates," persons who usually spend a full year in research at the laboratory. At this level, affiliates are required to have the equivalent of a doctor of philosophy degree in a U.S. university. There is no tuition at this level.

The other scientists and engineers are "participants," persons who have background in fundamental nuclear studies and the equivalent of a master's degree in a U.S. university. Tuition at this level is $1,000 a term.

Radiation protection taught at three universities

The Atomic Energy Commission is sponsoring special university courses for State and local government employees in radiation protection at the University of South Carolina, Oregon State University, and the University of Denver. The program is a cooperative effort of the AEC, State agencies, and the universities.

The classes, which began in September and will continue once a week for 9 months, include lectures, demonstrations, and laboratory work. Forty-eight government employees are taking the courses at the three universities. Persons taking the courses are required to have a bachelor's degree in one of the sciences or engineering, or the equivalent in academic study and practical experience.

National Science Foundation

New grants awarded

THE NATIONAL SCIENCE FOUNDATION has recently awarded a number of grants to colleges and universities in support of research projects and studies. These are:

1. A $14,130 matching grant to Amherst College to establish a modern teaching laboratory for nuclear and atomic physics. The laboratory will be used primarily for undergraduate teaching and for senior honors research in physics. Bruce Benson is in charge of the laboratory.

2. A $125,000 5-year grant to Teachers College, Columbia University, to study the factors which determine how conflicts between individuals and groups are resolved. The study is part of a revised graduate program in social psychology being established at Teachers College. The graduate program, for doctoral candidates, will place greater emphasis on basic research.

3. A $56,000 grant to Washington University to investigate the paleomagnetic characteristics of geological formations of Miocene and younger ages in Taiwan, South Korea, and the Philippines. The study is part of a scientific cooperative agreement between the United States and Japan.

4. Grants totaling $183,000 to the University of Delaware, to support eight research projects in chemistry, physics, engineering, psychology, and biological sciences. In addition to 9 faculty members, 22 graduate students are participating in the experimental work.

National trends in R&D funds, 1953–62

EXPENDITURES for research and development rose from $5 billion in 1953 to about $15 billion in 1961–62, according to *Reviews of Data on Research and Development* (Issue No. 41), recently published by the National Science Foundation. NSF estimates that about $16 billion was spent on research and development in 1962–63. Expenditures for basic research increased from $432 million in 1953–54 to $1,488 million in 1961–62. Almost one-half of the $1 billion increase was spent by colleges and universities.

Copies of *Reviews of Data on Research and Development*, No. 41, "National Trends in R&D Funds, 1953–62," may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, for 15 cents.

Public Health Service

Grants and fellowships—fiscal year 1963

THE PUBLIC HEALTH SERVICE awarded 15,939 grants totaling $449,681,185 for research projects in universities, medical schools, and other nonprofit institutions during the fiscal year ended June 30, 1963. The grants, which supported studies aimed at major diseases and other public health problems as well as the discovery of fundamental knowledge in the biomedical sciences, were made to 1,268 institutions in the United States and to 382 institutions in 52 other countries. They were administered through two of the Service's bureaus, the National Institutes of Health and the Bureau of State Services, with NIH's Division of Research Grants serving as coordinator.

Detailed information on these awards is given in a 580-page tabulation—*Public Health Service Grants and Awards, Fiscal Year 1963, Part I—Research Projects*. The tabulation is one of a series of five covering the various forms of financial assistance available from the Public Health Service.

Part I is available from the Superintendent of Documents, U.S. Government Printing Office, Wash-

ington, D.C., 20402, at $1.50 per copy. A limited supply of free copies is available from the Information Office, Division of Research Grants, National Institutes of Health, Bethesda 14, Maryland.

Grants and fellowships—fiscal year 1964

DURING the first 3 months of fiscal year 1964 the Public Health Service awarded 4,327 research grants and 1,950 fellowships totaling $127,959,587. The funds provided for new grants and for the continuation of previously approved awards.

More grants for research

THE PUBLIC HEALTH SERVICE has recently made a number of grants to colleges, universities, and nonprofit institutions for research. The grants and a short description of the projects to be supported are listed below.

1. A $204,031 grant to the Research Foundation of the State University of New York from the National Institute of General Medical Sciences in support of a study of the life span of cells and the manner in which these mechanisms affect the life span of the whole organism.

2. A $1 million grant to the University of Wisconsin from the National Institutes of Health to support the construction of a biotron center. The center will be devoted to the study of living organisms in a full range of controlled environmental conditions, including those in space. The grant for the center is one of 54 awards totaling $24,275,490 made to research institutions in 20 States as part of a grants program providing matching funds for the construction, renovation, and equipment of health research facilities.

3. A $619,725 grant to the University of Texas from NIH in support of a comprehensive long-term program of research in clinical pathology to improve laboratory procedures in the diagnosis and treatment of cancer.

4. A $30,000 2-year grant to Yeshiva University's Graduate School of Education from the National Institute of Mental Health in support of a study of human learning of skilled movements.

5. A $226,000 grant to the University of Texas from the National Institute of Mental Health in support of a research center in personnel services in the educational psychology department. The center is initiating a 5-year study of the constructive effects which a team of psychologists, social workers, sociologists, and psychiatric nurses can exert on the scholarship, achievement, and behavior of school children.

6. A $31,569 grant to the Adelphi Graduate School of Social Work from NIH in support of a study of school and family problems, potential delinquency, and prevention of social problems.

7. $311,365 for 8 grants to universities and nonprofit institutions from the Public Health Service in support of research for accident prevention.

Guide to PHS grants and awards

A new 32-page pamphlet offers general information about the various forms of financial assistance available from the Public Health Service. The publication lists individual institutes and divisions of the PHS, and provides information on research projects, training, special programs, construction support, formula and project grants, and international support.

The publication, *A Guide to Public Health Service Grants and Awards* (October 1963), may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, for 15 cents.

Federal support for medical research

A report recently published by the Public Health Service presents an analysis of the developments underlying the growth in Federal medical research in the postwar period.

The report, *Federal Support for Medical and Health-Related Research, 1947–64* (PHS Publication No. 1068), is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, for 40 cents.

Regulations governing grants now effective

Formal regulations governing Public Health Service grants for research projects became effective October 1, 1963. The new regulations, for the most part, formalize procedures that have been followed since the research project grants program began some 16 years ago. These regulations apply only to grants for research projects, and not to grants for support of general research, training or fellowships, demonstrations, studies in providing services outside hospitals or grants for the construction of hospital or research facilities.

Copies of the regulations are available from the Public Health Service, U.S. Department of Health. Education, and Welfare, Washington, D.C., 20201,

Committee to Study Higher Education in the District of Columbia

PRESIDENT KENNEDY had appointed a Committee on Public Higher Education in the District of Columbia to report to him on the desirability of establishing publicly supported institutions of higher education in the District. Members of the committee include Francis S. Chase, dean, Graduate School of Education, University of Chicago, committee chairman; Mrs. Agnes E. Meyer, Washington, D.C.; Samuel N. Nabrit, president of Texas Southern University; James R. Killian, Jr., former president of Massachusetts Institute of Technology; and Thomas R. McConnell, chairman of the Center for Study of Higher Education of the University of California. The committee may be expanded later.

The committee will study such questions as the following: should the District of Columbia have publicly supported institutions beyond the secondary school level? If so, what type or types should be established?

Institutes Study Rehabilitation Problems

THE U.S. Vocational Rehabilitation Administration has awarded grants to five universities in support of the construction of regional rehabilitation research and demonstration institutes. The institutes are intended to stimulate research, to provide research consultation to the State vocational rehabilitation agencies, and to conduct research with State agencies. They are being established at the State universities of Minnesota, Florida, Utah, and Wisconsin and at Northeastern University.

AYERS & HOLLIS
continued from p. 6

techniques for the promotion of a strong bond of loyalty and friendship between the institution and its alumni, parents of students, the school's sponsor, and similar special-interest groups.

15. In close cooperation with others in the president's span of control, he develops and executes policy for the guidance of campus and physical-facilities planning and provides for its supervision.

16. In close cooperation with the president, he is responsible for presenting the needs of the institution to philanthropic organizations and individuals, to industrial and commercial corporations, to the sponsors of the institution, and to other prospective donors for the current and capital costs of operating the institution.

17. Under the direct supervision of the president, and in close cooperation with the business manager, he assists in the interpretation of the current financial program of the institution to the board of trustees, sponsoring groups, and other pertinent individuals and officials.

18. As directed by the president, he promotes the interest of the institution before agencies with resources for financing desirable programs, such as those in the Federal Government and in business and industry.

19. He is charged with the development, in cooperation with others, of appropriate job sheets for those under his supervision.

20. He develops a sound administration for publicity, planning, and development, for which he is responsible.

ALTHOUGH it does not fall within the scope of this article to delineate job specifications for academic officers all the way down the line, if this sort of thing is good for the top echelons, it is good for the lower levels. Moreover, even though it is important to outline the functions and duties assigned to each officer, unless the person doing the delegating is willing to truly delegate and those accepting the delegation have the courage and skill to carry it out, writing out the job specifications is worthless.

These illustrative duties and relationships of general administrators of colleges and universities are set forth here on the assumption that people of competence, dedication, and leadership will administer institutions of higher education. Lack of mutual respect and confidence among college and university officials is more devastating than inadequate administrative arrangements.

UNIVERSITY MICROFILMS, INC.
313 N FIRST STREET
ANN ARBOR, MICH
HE-MAY

UNITED STATES
GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS

If you do not desire to continue receiving this publication, please CHECK HERE ☐; tear off this label and return it to the address at the left. Your name will then be removed promptly from the appropriate mailing list.

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300 (GPO)

GOVERNMENT PUBLICATIONS

How To Obtain

(*1*) *Cost Publications: Send request, enclosing remittance (check or money order), to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402*

(*2*) *Free Publications: Request direct from the agency issuing them.*

From the Office of Education

Announcing Modern Foreign Language and Area Study Fellowships, 1964–65. Free. (OE–55022–65)

Cooperative Research Projects: Fiscal 1962. 64 p. 45 cents. (OE–120004–62)

Fine Arts Education in the Soviet Union, by Mayo Bryce. 74 p. 50 cents. (OE–14085)

Improving the Learning Environment: A Study on the Local Preparation of Visual Instructional Materials, by Gene Faris, John Molestad, and Harvey Frey. 148 p. $1.00. (OE–34031)

International Teacher Development Program, 1961–62: Annual Report to the Bureau of Educational and Cultural Affairs, U.S. Department of State. 57 p. Free. (OE–14003–64)

Professional Literature for Teachers of Elementary Science, by Paul E. Blackwood and Lorraine F. Kibler. 13 p. Free. (OE–29052)

Reporter: Clearinghouse of Studies on Higher Education, by Winslow R. Hatch and Alice L. Richards. 1963. 53 p. 40 cents. (OE–50004–6)

The School Library as a Materials Center: Educational Needs of Librarians and Teachers in Its Administration and Use, edited by Mary Helen Mahar. 84 p. 50 cents. (OE–15042)

State Directors of Junior Colleges and Coordinators of State Systems of 2-Year Colleges: Conference Proceedings, November 28–29, 1962. 41 p. Free. (OE–57003–62)

State Plans Under the Library Services Act, Supplement 3: A Progress Report, The First Five Years, Fiscal Years 1957–61, by the Library Services Branch. 186 p. 75 cents. (OE–15012–61)

Summary Report on Survey of Students Enrolled for Advanced Degrees: Fall 1962, by the Higher Education Survey Section. 7 p. Free. (OE–54009–62)

The 2-Year Community College: An Annotated List of Unpublished Studies and Surveys, 1957–61, by D. G. Morrison, Ken August Brunner, and S. V. Martorana. 41 p. 20 cents. (OE–57005)

From Other Government Agencies

Public Health Service Grants and Awards, Fiscal Year 1963, Part I—Research Projects. Washington, U.S. Government Printing Office, 1963. 580 p. $1.50. (Public Health Service, No. 1079, Part I.)

Resources for Medical Research: Federal Support for Medical and Health-Related Research 1947-1964. Washington, U.S. Government Printing Office, August 1963. 54 p. 40 cents. (Public Health Service, No. 1068.)

Reviews of Data on Research and Development, "National Trends in Research and Development Funds, 1953–62." Washington, U.S. Government Printing Office, 1963. 11 p. 15 cents. (National Science Foundation, NSF 63–40.)

U.S. GOVERNMENT PRINTING OFFICE:1963